

### REMARKS

In view of the above amendments and following remarks, reconsideration of the rejections contained in the office action of November 13, 2006 is respectfully requested.

It is initially noted that the specification and abstract have been carefully reviewed and revised in order to correct grammatical and idiomatic errors in order to aid the Examiner in further consideration of the application.

In the office action, claims 1-3, 7, 10, 11, 13-15, 17-19, 23, 28 and 29 were rejected by the Examiner as being anticipated by Yang Y R et al: "Reliable Group Rekeying: A Performance Analysis" (Yang). Further, claims 3-6, 35-39, 42, 45, 46, 53, 54 and 59 were rejected as being anticipated by Wong et al. Claims 3, 8-9, 35 and 60-61 were rejected as being anticipated by Steiner et al. Claims 3 and 12 were rejected as being anticipated by Paolo. Claims 3 and 16 were rejected as being anticipated by Canetti et al. Claims 3, 20-22, 24-27, 34, 43, 51 and 66-68 were rejected as being anticipated by Yevgeny. Claims 3 and 30-33 were rejected as being anticipated by Huang et al. Claims 35, 40, 41, 44, 47-50, 52, 55, 56, and 62-64 were rejected as being anticipated by Peinado. Claim 65 was rejected as being anticipated by Setia et al.

Further, claim 57 was rejected as being unpatentable over Wong and claim 58 was rejected as being unpatentable over Wong in view of Hornbuckle. However, it is respectfully submitted that the present invention as now set forth in independent claims 49 and 69-74 clearly patentably distinguishes over each of the references cited by the Examiner.

Claim 17 was only rejected by the Yang reference. However, it is respectfully submitted that Yang does not disclose or suggest the subject matter of claim 17. As such, the distinguishing characteristics of claim 17 have been included in new independent claim 69, with claims 3-34 now depending therefrom. Claims 1-2 and 35-48 and 50-68 have been cancelled. Prior claim 49 and new independent claims 70-74 all contain the same aspect distinguishing over Yang.

That is, each of the independent claims reflects the fact that the group management device permits the registration of the member device in the group only for a valid period shown by valid period information. The group management device outputs the common secret information and the valid period information to the member device for registration. The group management device can thus cause the registered member device to manage the common secret information. Further, when the valid period ends, a judging unit reduces the number of registered devices. Thus at the end of the valid period a vacancy can be performed in the group for other devices that request registration in the group. Yang, the only reference cited with respect to prior claim 17, does not disclose or suggest information showing a valid period, and therefore registration periods of member devices cannot be managed.

For example, in order to delete an offline member device not always connected to the group management device all of the time, the offline device generally needs to be connected to the group management device for deletion processing to be performed. According to Yang, an offline device taken out of a user's home has the possibility of being registered without being connected to the group management device for a long time period. When it is assumed that the number of registered devices in a system is equal to the maximum number of registerable devices, the following problem occurs. If the offline device essentially has no need to be registered to the group, the group management device cannot register other devices that request registration in the group until the offline device gets connected to the group management device and deletion processing completes.

However, with the present invention as reflected in independent claim 69, the group management device can output valid period information for use of common secret information as well as reduce the number of registered member devices when a valid period established by the valid period information ends. Therefore, regardless of whether a member device is an online device or an offline device, the group management device can delete the member device from the group when the valid period ends. The group management device can then form a vacancy in the group for a newly registered member device.

Claim 49 recites a receiving unit operable to be authenticated by the group management device and to receive common secret information from the group management device unique to the group that includes the valid period information showing the valid period of use of the common secret information. It further recites a holding unit operable to hold the received common secret information, monitor elapse of the valid period and delete the common secret information when the valid period ends. Thus the member withdraws from the group by deleting the common secret information at the end of the valid period. Similar to the above, this is not disclosed by either Yang or Wong.

Each of independent claims 70-74 reflect similar aspects and distinguish over Yang and Wong for similar reasons.

Because of the clear distinction discussed above, it is submitted that the teachings of Yang and Wong clearly do not meet each and every limitation of the independent claims. Furthermore, it is submitted that the distinctions are such that a person having ordinary skill in the art at the time the invention was made would not have been motivated to modify Yang or Wong in such a manner as to result in, or otherwise render obvious, the present invention as recited. Therefore, it is submitted that the independent claims, as well as the dependent claims which depend therefrom, are clearly allowable over the prior art as applied by the Examiner.

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is clearly in condition for allowance. An early notice thereof is respectfully solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, the Examiner is respectfully requested to contact the undersigned by telephone in order to resolve such issues.

A fee and a Petition for a one-month Extension of Time are filed herewith pursuant to 37 CFR § 1.136(a).

Respectfully submitted,

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March 13, 2007